

# JOINT INVESTIGATION REPORT

INCIDENT NO: 1826836 JIV report S/N: Nº 0000235

(Note: As practicable as possible the JIT report is to be signed in the field by all the participating parties)

## A. GENERAL INFORMATION:

1. Spill incident Number: 1826836 2. Type of incident\* OIL SPILL  
3. Name of Location 12" IMD RIVER - OGALE PIPELINE  
4. Name of nearest community UZUAKU 5. State: ABIA 6. LGA UKWA WEST  
7. Type of Production facility/Installation OIL PIPELINE  
8. Asset owner/District THE SHELL PETROLEUM DEVELOPMENT COMPANY OF NIGERIA LTD (SPDC)/PIPELINE

## B. INCIDENT INFORMATION:

### 9. Details of incident

- a. Date of incident: 27TH MARCH 2017  
b. Start date/time of investigation: 29TH MARCH 2017/1100HRS  
c. Investigation End date: 05<sup>TH</sup> APRIL 2017 Actual investigation duration, days: SIX(6) DAYS  
d. Description of spill point environment

- |   |  |   |
|---|--|---|
| <input type="checkbox"/> Firm soil                | <input checked="" type="checkbox"/> Loose soil | <input checked="" type="checkbox"/> Recently excavated area |
| <input type="checkbox"/> Under water              | <input type="checkbox"/> Swampy                | <input type="checkbox"/> Exposed pipe surface               |
| <input type="checkbox"/> Well Platform (on Water) | <input type="checkbox"/> Drill Rig             |   |

Additional observations around the spill point: THE TEAM OBSERVED A DRILLED HOLE AT 12 O'CLOCK POSITION.

### e. Description of leak point (tick as applicable):

- |   |   |  |
|---|---|--|
| <input checked="" type="checkbox"/> Drilled hole                    | <input type="checkbox"/> Hack saw cut         | <input type="checkbox"/> Tear (_____).                                     |
| <input type="checkbox"/> Complete Rupture                           | <input type="checkbox"/> Inward dent,         | <input type="checkbox"/> Well head tampering                               |
| <input type="checkbox"/> Failed Weld-on illegal hot tap valve       | <input type="checkbox"/> Failed Clamp,        | <input type="checkbox"/> Missing Pipeline/Flowline                         |
| <input type="checkbox"/> Crude oil theft (illegal bunkering) point, | <input type="checkbox"/> Saver-pit over flow  | <input type="checkbox"/> Third party tampering with Clamp                  |
| <input type="checkbox"/> Third party tampering with valve setting   | <input type="checkbox"/> Bulging Outward      | <input type="checkbox"/> Third party tampering with flange,                |
| <input type="checkbox"/> Flare System/Bund wall failure             | <input type="checkbox"/> Cold vent            | <input type="checkbox"/> Surge vessel overflow,                            |
| <input type="checkbox"/> Valve Failure                              | <input type="checkbox"/> Relief valve failure | <input type="checkbox"/> Accidental 3 <sup>rd</sup> party equipment impact |
| <input type="checkbox"/> Others(specify) _____                      |   |  |

### f. Incident caused by:

- Third party interference (Sabotage  crude theft : Line theft : Accidental 3<sup>rd</sup> party damage   
 Operational  Others (including Mystery spills) \_\_\_\_\_

\*This can be: a) Oil Spill b) Drilling fluid Chemical c) Siltation d) construction e) Encroachment f) Fire.

# JOINT INVESTIGATION REPORT

INCIDENT NO: 1826836 JIV report S/N:

Nº 0000235

g. Spill point coordinates

h. Measuring unit

WGS 84

Northing: LATITUDE	Easting: LONGITUDE
4.89453	7.17892
<del> </del>	<del> </del>
<del> </del>	<del> </del>
<del> </del>	<del> </del>

**C. RISK ASSESSMENT**

10. Type of environment:

- Land     
  Swamp     
  Water     
  Seasonal swamp     
  Shoreline/Waterfront

i. Type of environment to which oil has spread:

- Land     
  Swamp     
  Water     
  River (identify) \_\_\_\_\_

ii. Weather condition

- Rain     
  Sunny     
 Dry     
 Wet     
 Windy     
 Hot     
 Cool

11. Distance from the nearest sensitive habitat

- Government reserved and designated protected area
- Drinking water source
- Built up area
- Farmlands
- Fish Farm/Pond
- Fishing net
- Others (specify). RAIL WAY

[ .m]  
[ .m]  
[ .m]  
[ .m]  
[ .m]  
[ .m]

} NONE SEEN  
WITHIN VICINITY

12. Containment measures put in place:

- Booms     
 Trench     
 Dyke     
 Natural depression     
 Pit     
 None
- Others: \_\_\_\_\_

13. Any pictures or video coverage?

[N]

14. Further response/repair initiated as at the time of JIV?

[N]

If yes to item 14, give brief description:

REPAIR BY CLAMPING

15. Was there any disruption to the investigation?

[Y]

# JOINT INVESTIGATION REPORT

INCIDENT NO: 1826836 JIV report S/N: Nº 0000235

If yes to item 15 give brief description:

NOT APPLICABLE

**D. TYPE/NUMBERS OF PROPERTIES, IF ANY, FOUND WITHIN THE AREA OF SPREAD OF OIL**

16. Structures / Properties

S/N	Type of Structures	Description	Size	Number	Comments
<u>NONE WITHIN AREA OF IMPACT</u>					

17. Crops/Economic Trees

S/N	Type of crops	Young	Medium	Matured	Quantity	Comments
<u>NONE WITHIN AREA OF IMPACT</u>						

18. Fishing Nets/Fish Ponds

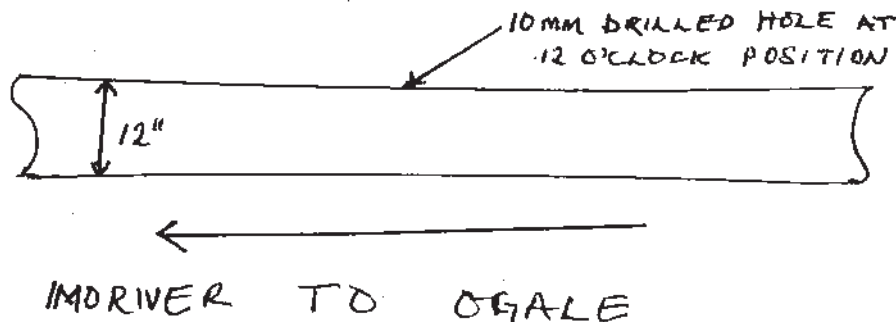
S/N	Nets/Ponds	Description	Quantity/Size	Comments
<u>NONE WITHIN AREA OF IMPACT</u>				

19. Others (Specify) i.e. Animal Traps

S/N	Others	Description	Quantity/Size	Comments
<u>NONE WITHIN AREA OF IMPACT</u>				

**E. GRAPHIC DESCRIPTION OF LEAK POINT** (while detail report of the leak point should be contained in the leak report, overview sketch of the site should be added as an appendix 1)

A SECTION OF 12" IMORIVER - OGALE PIPELINE AT UZUAKU SHOWING A 10MM DRILLED HOLE AT 12 O'CLOCK POSITION DONE BY UNKNOWN PERSONS.



# JOINT INVESTIGATION REPORT

Nº 0000235

INCIDENT NO: 1826836 JIV report S/N:

## F: TABLE SHOWING SOME OF COORDINATES TAKEN DURING JIV FOR AREA CALCULATION

20. Impacted area boundary Coordinates (if more, Print and attach as an appendix)

WCS 84

S/N	Northing	LATITUDE	Easting	LONGITUDE
1.		4.89436		7.17692
2.		4.89438		7.17689
3.		4.89437		7.17686
4.		4.89444		7.17690
5.		4.89444		7.17699
6.		4.89457		7.17708
7.		4.89464		7.17699
8.		4.89460		7.17689
9.		4.89448		7.17680
10.		4.89420		7.17663
11.		4.89417		7.17664
12.		4.89413		7.17661
13.		4.89397		7.17651
14.		4.89391		7.17658
15.		4.89410		7.17674
16.		4.89431		7.17692

# JOINT INVESTIGATION REPORT

INCIDENT NO: 1826836 JIV report S/N: **Nº** 0000235

## G. INCIDENT INFORMATION:

### a. Impacted Area Details

- Total calculated area of impact 0.14 Ha
- Impact within R.O.W YES
- Impact outside R.O.W YES

### b. Volume of oil recovered before completion of JIV ( $V_{rec}$ ):

Recovered oil $V_{rec}$ :	<u>654</u>	Barrels
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Controlled recovery/evacuation from source with no impact to environment:

<u>NIL</u>	Barrels
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### c. Net Estimated Spilled Volume $V_{est}(bbls)^*$ =

976.64 BBLs

### Estimated Reported Volume\*\* $V_{rep}(bbls)$ =

977 BARRELS

#### \*Notes:

- Volume estimation was done using an excel based tool. (see attached for details on the calculation)
- Reported spilled volume is an estimate

Write other relevant notes taken into consideration for estimating the spilled, in the box below:

Calculation of the respective estimated volume is to be done on site as far as practicable using the new spill volume estimation software on site; Conversion of  $m^3$  to barrels is  $Volume (m^3) \times 6.29$ ; \*\*Round up estimated volume to next whole number using the following rules:

- Any spill volume in excess of 1 bbl is rounded up to the next whole number.
- Any spill volume in less than 1 bbl is rounded up to the next 0.1 bbl.

Examples: Calculated volume = 15.3 bbl ----- Reported volume = 16 bbl  
Calculated volume = 0.35 bbl ----- Reported volume = 0.4 bbl  
Calculated volume = 0.01 bbl ----- Reported volume = 0.1 bbl

Whenever this estimation tool is not applicable please refer to paragraph 6c (Deviation) of the JIV procedure to use appropriate steps for volume estimation, record the calculation on a plain sheet of paper and attach to the JIV report

# JOINT INVESTIGATION REPORT

INCIDENT NO: 1826836 JIV report S/N: N<sup>o</sup> 9000235

## d. General Status of the site

i. Joint investigation of the incident site found that there is no residual impact after the initial response and JIT therefore recommend that the site be closed out <input type="checkbox"/>
ii. Investigation of the incident site showed that there is residual impact on site requiring further works <input checked="" type="checkbox"/>

## e. Representatives

This report was filled, agreed and signed by the following joint investigation team representatives:

- Host Community:
- Department of Petroleum Resources (DPR):
- National Oil Spill Detection and Response Agency (NOSDRA):
- State Ministry of Environment (SME):
- Asset Owner:
- Signatories agree with reported findings:
- Separate DPR form has been filled out with same findings:

*Tick as applicable*

# JOINT INVESTIGATION REPORT

No 0000235

INCIDENT NO: 182 6836 JIV report S/N:

f. Appendix 1: Overview sketch of the site

